

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Norman Latker on 12/17/07.

**The application has been amended and claims 2-3 have been canceled as follows:**

**2. The claims have been listing below:**

1. (Previously Presented) A rapid-action coupling cylinder comprising:

a guiding device which controls insertion of a pull-in nipple (2) fixed to the underside of a workpiece pallet (19) into a central receiving aperture in a housing (11) of the rapid-action coupling cylinder (1),

wherein a front face on a free end of the pull-in nipple (2) has, in the direction of insertion, and a conical bevel (17) that is beveled toward the rear, which cooperates with an associated and oppositely beveled conical receptacle (18) in the housing (11);

wherein an inner beveled circumference of the receiving aperture (4) on a cover of the housing (11) has an inlet radius (102) that engages the

Art Unit: 3723

conical bevel (17) and guides the pull-in nipple (2) into the conical receptacle (18), and

wherein the conical receptacle (18) is formed by a upper ball bearing cup (8) and a lower spring support (9).

Claims 2-3 (Canceled)

4. (Previously Presented) A rapid-action coupling cylinder comprising:

a guiding device which controls insertion of a pull-in nipple (2) fixed to the underside of a workpiece pallet (19) into a central receiving aperture in a housing (11) of the rapid-action coupling cylinder (1), wherein a free end of the pull-in nipple (2) has a recessed conical receptacle (33) that engages an associated and oppositely beveled conical tip (34) in the housing (11).

5. (Previously Presented) A rapid-action coupling cylinder according to claim 1, wherein the conical receptacle (18) disposed in the housing (11) is fixed to the housing.

6. (Previously Presented) A rapid-action coupling cylinder according to claim 4, wherein the oppositely beveled tip (34) disposed in the housing is fixed on a lifting piston that is arranged raisable and lowerable in the housing.

7. (Previously Presented) A rapid-action coupling cylinder according to claim 6, in a region where the pull-in nipple (2) and the lifting piston make contact, the corresponding contacting and associated surfaces are kept free from contaminations.

8. (Previously Presented) A rapid-action coupling cylinder according to claim 7, wherein the lifting piston has provided in it blowing-air openings or cooling agent openings that are directed towards associated surfaces of the pull-in nipple (2).

9. (Previously Presented) A rapid-action coupling cylinder according to claim 6, wherein the lifting piston (21) is composed of several parts and that an upper part thereof consists of an exchangeable wear insert (28).

10. (Previously Presented) A rapid-action coupling cylinder according to claim 6, wherein disposed in the lifting piston is a turbine wheel (36) that is driven in rotation.

11. (Previously Presented) A rapid-action coupling cylinder according to claim 6, wherein in a region of the conical tip of the lifting piston, an annular projection (35) with nose-shaped cross section is provided that chops shavings that enter into the intermediate space between the pull-in nipple (2) and lifting piston (31).

12. (Currently amended) A rapid-action coupling cylinder according to claim 11, wherein an air-carrying space is formed on an underside of the workpiece pallet (19).

13. (Currently amended) A rapid-action coupling cylinder according to claim 4, wherein a sealing-air monitoring is provided for monitoring a flat and level seat of the workpiece pallet (19) on a top surface of the cover (6).

14. (Previously Presented) A rapid-action coupling cylinder comprising a guiding device which controls insertion of a pull-in nipple (2) fixed to an underside of a workpiece pallet (19) into a central receiving aperture in a housing (11) of the rapid-action coupling cylinder (1), wherein between the pull-in nipple (2) and a lifting piston (21, 31, 61, 71) disposed in an interior of a rapid-action coupling cylinder, a capturing device (50, 53, 54, 56) is arranged which mechanically connects the pull-in nipple to the lifting piston.

15. (Previously Presented) A rapid-action coupling cylinder according to claim 14, wherein the capturing device consists of a capture screw (50) having a stepped shape with multiple steps, which extends through the pull-in nipple (32) and is engageable to a capturing element (56) fixed on the lifting piston.

16. (Previously Presented) A rapid-action coupling cylinder according to claim 6, wherein between the pull-in nipple (2) and the lifting piston (21, 31, 61, 71) disposed in the interior of the rapid-action coupling cylinder, a

Art Unit: 3723

capturing device (50, 53, 54, 56) is arranged which mechanically connects the pull-in nipple to the lifting piston.

17. (Currently amended) A rapid-action coupling cylinder according to claim 4, wherein multiple pull-in nipples that are arranged parallel with each other on the underside of workpiece pallet, wherein a capturing device is assigned to each pull-in nipple in a separate rapid-action coupling cylinder, all capturing devices are driven synchronously.

18. (Previously Presented) A rapid-action coupling cylinder according to claim 17, wherein the lifting pistons (71) that are connected to the capturing device in each case are mechanically connected to each other by means of a toggle-lever rod assembly (70, 72, 81, 82).

19. (Previously Presented) A rapid-action coupling cylinder comprising a locking action, effected by spring-biased balls, of a round member that has at least one locking groove and moves in a center recess of the housing in the rapid-action coupling cylinder, and whose locking action is released by displacement of the balls by means of a fluid-actuated piston, wherein the round member is implemented as a machine shaft (91) that extends through the housing (11) of the rapid-action coupling cylinder (1).

20. (Previously Presented) A rapid-action coupling cylinder according to claim 19, wherein the machine shaft (91) has one or a plurality of locking grooves (92, 93, 94) arranged at an axial distance from each other,

Art Unit: 3723

parallel with each other, which are selectively engageable with a locking means of the rapid-action coupling cylinder (1).

21. (Currently amended) A rapid-action coupling cylinder according to claim 4, wherein two oppositely acting rapid-action coupling cylinders (1, 1') engage in locking grooves (92, 93, 94) and create an opposite pull-in force in each case.

22. (Previously Presented) A rapid-action coupling cylinder according to claim 20, wherein the machine shaft (91) is supported rotatably in the locking means of the rapid-action coupling cylinder.

23. (Previously Presented) A rapid-action coupling cylinder according to claim 4, wherein the recessed conical receptacle (33) disposed in the housing (11) is fixed to the housing.

### **REASONS FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance:
  - a. The claims are not anticipated nor rendered obvious by the prior art. Allowable subject matter was identified in the claims which read over the prior art of record. The previous response was misunderstood by the examiner and placed the application in condition for allowance see remarks. The claim dependency and all remaining issue have been resolved. Authorization was granted to make an examiners amendment

placing the application in condition for allowance and Terminal Disclaimer was filed in overcoming any Double Patenting rejections.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE D. WILSON whose telephone number is 571-272-4499. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH HAIL can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 3723

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/LEE D WILSON/

Primary Examiner, Art Unit 3723

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